AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings and versions thereof.

Claim 1. (currently amended) High-temperature solid electrolyte fuel cell comprising an electrolyte layer between two electrode layers obtainable by a process comprising the steps:

(i) applying electrolyte particles in a screen printing paste onto an unsintered electrolyte and sintering the thus produced structure,

(ii) depositing a nano-porous electrode thin layer by a sol-gel-process or an MOD-process on the structure obtained according to step (i) and the thermal treatment of the thus coated structure,

wherein ~~a paste comprising scandium doped zirconium dioxide or doped cerium oxide (yttrium, gadolinium or samarium doped) is used as screen printing paste~~ the fuel cell further comprises an electrolyte boundary layer on the structured screen printed electrolyte layer obtained according to step (i), which electrolyte boundary layer is applied by an MOD-process and has a thickness of 100 to 500 nm.

Claim 2. (currently amended) High-temperature solid electrolyte fuel cell according to claim 1 wherein an electrolyte of yttrium or scandium doped ZrO_2 is used in step (i).

Claim 3. (cancelled).

Claim 4. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein the screen printing paste has a solid content of 10 to 30 wt.-%.

Claim 5. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein the granule size distribution of the powder fraction of the paste is in the range of 5 to 20 µm.

Claim 6. (cancelled)

Claim 7. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein a layer comprising strontium doped lanthanum cobaltate (LSC) $La_{0.50}Sr_{0.50}CoO_3$ is deposited in step (ii).

Claim 8. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein a layer comprising substochiometric strontium doped lanthanum manganate (ULSM) $La_{0.75}Sr_{0.20}MnO_3$ is deposited in step (ii).

Claim 9. (previously presented) High-temperature solid electrolyte fuel cell according to claim 7 wherein the solid content of the LSC coating solution is 12-14 mass %.

Claim 10. (currently amended) A process to provide a fuel cell comprising:

(i) applying electrolyte particles in a screen printing paste onto an unsintered electrolyte and sintering the thus produced structure,

(ii) depositing a nano-porous electrode thin layer by a sol-gel-process or an MOD-process on the structure obtained according to step (i) and the thermal treatment of the thus coated structure,

wherein ~~a paste comprising scandium doped zirconium dioxide or doped cerium oxide (yttrium, gadolinium or samarium doped) is used as screen printing paste~~ the fuel cell comprises an electrolyte boundary layer on the structured screen printed electrolyte layer obtained according to step (i), which electrolyte boundary layer is applied by an MOD-process and has a thickness of 100 to 500 nm.

Claim 11. (previously presented) High-temperature solid electrolyte fuel cell according to claim 8 wherein the solid content of the ULSM coating solutions is 12-14 mass %.